

ABSTRACT OF THE DISCLOSURE

A method for removing sulfur dioxide from flue gas and forming ammonium salts is described, along with a method for conversion of the ammonium salts into thiosulfate. Also described are an apparatus for absorbing sulfur dioxide from flue gas and an apparatus for converting ammonium salts into thiosulfate. The apparatus for absorbing sulfur dioxide from flue gas includes a multistage scrubber. The apparatus for converting ammonium salts into thiosulfate includes a fluidized bed reactor.